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WAYSIDE NOTES IN SWITZERLAND.

By EDWARD HAMILTON, M.D., F.Z.S.

ONE sees more birds, particularly of the smaller kinds, in Switzerland than in the neighbouring countries of *la belle* France or of sunny Italy. They are not so much sought after by the *chasseur*. No strings of Robins, Tits, Redstarts, Chaffinches, Blackbirds, and other songsters of the grove, are to be found hanging up on the stalls on market days, as is invariably the case in the cities and towns of Northern Italy. The Switzers appear not to care for such trifles, but they dearly love a good Squirrel; and it is amusing to see how the connoisseurs handle and pinch the loins of the defunct beauties to test their fatness. On one stall at Lucerne I counted eighteen of both species (*S. vulgaris* and *alpinus*), and they were all sold within a quarter of an hour. The smaller birds, for the most part, are left to themselves to perform their duties, unmolested by nets or guns, and the consequence is that many pleasant voices enliven the woods and gardens of this happy land.

The few remarks I have noted down were made at a time when many birds are silent, and many about to depart or have departed south; but I am told by competent authorities that there is no lack of birds of all kinds singing and breeding in the spring months, which a glance at some of the museums where special rooms are devoted to the fauna of the country fully verifies. At the Grand National Exhibition, held at Zurich last

year, the Swiss Alpine Club built a chalet in the gardens, in which was exhibited a fine collection of the fauna of the country; most of the specimens were well set up, but some of the birds not quite in accordance with their natural instincts.

LAMMERGEIER, *Gypaëtus barbatus*.—Had a fox in his talons, as if alive. According to most authorities, this bird, like other Vultures, depends mainly on dead animals or carrion, for its food. Its claws are not formed, as those of the Eagles or other Raptores, for grasping or carrying off live animals of any size. There were specimens of the bird in three different states of plumage. In the second figure in Dresser's 'Birds of Europe' the head appears to be too black. The *Gypaëtus* is almost extinct in Switzerland; in fact, the curator of the Natural History Museum at Zurich informed me that it could not now be found in any part of that country. I was told, however, by Herr Stauffer, at Lucerne, that he still knew of two pairs of these birds, but he would not say where. I suspect, from hints he dropped as to his own sporting localities, that the most unfrequented crags of the Grisons still hold them.

GOLDEN EAGLE, *Aquila chrysaëtus*.—Also well represented at this exhibition in various states of plumage. Here, again, the bird, in its early immature state, that is, with the white on the basal part of the tail very distinct,—in fact, the plumage which in former days caused this bird to be classed under the specific name of *Aquila fulva*,—is set up, with wings outspread, feeding its young. Query, does the bird breed in this state of plumage? The Golden Eagle is a long time getting to its perfect plumage, and some white feathers remain on the tail, probably for two or three years, and it may breed then, but hardly in the first year's plumage. On one occasion, when ascending the Schelthorn, a splendid Eagle, which my guide declared to be a Golden Eagle, soared over my head; but this bird is becoming very rare in the inhabited or frequented districts.

In the Berne Museum of Natural History, *Aquila imperialis* and *A. clanga* are placed in the department appropriated for the fauna of Switzerland, where the whole of the European *Falconide* are well represented.

OSPREY, *Pandion haliaëtus*.—Still to be found in many localities. I noticed one sailing above Schaffhausen, on the Rhine, and another—or, may be, the same or its mate—on the

lower part of the Lake of Constance. Twenty-five years ago a pair were daily to be seen on the Lake of Lucerne, just below Brunnen, and I recollect disturbing one off the great mass of rock, the Mythenstein, which is now devoted to a monument to Schiller, at the entrance of the Bay of Uri. The specimens in the exhibition of the Swiss Alpine Club were particularly good ones, and well set up.

I noticed what I believe to have been a female Hen Harrier, *Circus cyaneus*, hunting in the meadows between Baden and Zurich, although not near enough to distinctly state it was that bird, yet from its mode of quartering its ground, &c., like what I have seen many times in this country, when I have been able to get much nearer the bird, I am pretty certain it was the female of this species.

FORK-TAILED KITE, *Milvus iclinus*.—Not uncommon. When I was at Schaffhausen one of these birds would come every evening between four and five o'clock sailing and soaring over the river, and remain hovering over one place, always the same, for a minute or two—a kind of farmyard, where, no doubt, he had often picked up his supper. He looked a noble fellow, and as he wheeled round and round, the evening sun would light up his plumage, making him look quite golden. I rather selfishly wished to possess him, knowing, as a salmon-fisher, what power a "glead tail" fly exerts over the migratory monsters of the Lochy and other well-known salmon rivers. I also saw a pair of these birds on the Lake of Zug.

THE KESTREL, *Falco tinnunculus*, is everywhere, and the SPARROWHAWK, *Accipiter nisus*, also. One of the last-named birds, a male, used to frequent the banks of the Limmat, close to the Hotel at Baden; under the terrace which was built on the banks, the Wagtails and Redstarts collected in considerable numbers to prey upon a species of *Ephemera*, very like a small mayfly, only grey, filling the air in vast swarms, and I have seen him whisk round the corner of the terrace and carry off a Wagtail with a rapidity quite astonishing. At another time I saw him take away a young Redstart from the balcony at the corner of the hotel: he appeared to rise up from the river, swoop and carry off his prey before one could wink. On this particular occasion he was baulked of his dinner: as he flew across the river to his dining-place,—a large flat stone, where I have often

seen him, he was suddenly surprised by two fishermen, and he dropped the poor bird, which fell among the vines, and "Mr. Accipiter" took refuge in some high trees close by. Twice I saw him attempt to recover his dinner, but both times being frustrated by the fishermen, he at last very reluctantly gave it up.

BUZZARD, *Buteo vulgaris*.—Very common. I have watched a pair of these birds soaring to a great height over the vines and pastures, and then suddenly descending. I only once saw this bird seize its prey, which he did much like an Owl, suddenly dropping on the grass, and after a time rising and flying off with a rat, or something about that size, in its claws. At Felsinegg, on the Zuger Berg, 3250 feet above sea-level, there were four pairs within a comparatively small radius. They were very fond of sitting on the poles placed for stacking the fern and bracken in the open uncultivated places, and were very tame, often allowing me to come within fifty yards of them, and then only slowly flying to the next pole or neighbouring pine tree. It appeared to me that there were two species, one rather larger and lighter in colour than the other—perhaps *Buteo lagopus*.

STORK, *Ciconia alba*.—Generally takes its departure from Switzerland before the arrival of the autumn tourists, but up to the 12th or 15th of August a pair or two, with their young, may be found, if looked after; most of them, however, have gone to warmer climes. They are very tame, as, being unmolested, they fear not man. About three or four miles out of Basle, on the road to Zurich, there is a Stork's nest on a high chimney at a farmhouse, and I noticed the *père* and *mère* Stork with their family, walking stately about the marshy fields by the Rhine, in close proximity to the men mowing the grass, apparently quite accustomed to their presence. There used to be a nest in one of the towers or pinnacles of Basle Cathedral, but the necessary repairs, which continued for some time, have driven them away. Whilst sitting on the terrace of the cathedral, I saw a Stork fly across the river, and then begin gyrating upwards and upwards in ever-increasing circles till it became but a speck and almost invisible. I noticed two of these birds near Regensberg as late as the 12th August; they settled down quite close to some men in the fields, and appeared to be quite familiar with them. The Swiss, I suppose, believe in the old

saying, "If a Stork builds in the housetop conjugal affection is never disturbed within." Montgomery says:—

Stork, why were human virtues given thee?
"That human beings might resemble me,
Kind to my offspring, to my partner true,
And duteous to my parents. What are you?"

HERON, *Ardea cinerea*.—With its lazy, flapping flight, is found amongst the marshy fields by the Limmat. I only saw two, and I think they are not very common.

RAVEN, *Corvus corax*.—Two or three times I heard the unmistakable bark of the Raven,—a sound distinctly audible even when the bird is so high as to be almost out of sight,—but it is not very common in the lower valleys.

CROW, *Corvus corone*, and ROOK, *Corvus frugilegus*.—Common enough. The latter abounds in all the lower plains, but I never could detect any with the bare warty base of the beak. Is it that all the birds we see in August are young ones? or is it that the food of this bird is chiefly derived from moister ground, and therefore this condition is not attained? How fond these birds are of young walnuts! Along the shores of the Lake of Constance, where walnut trees abound, the Rooks commit great depredations.

MAGPIE, *Picus caudata*.—Common as this bird is in France and Italy, I only saw it twice in Switzerland, near Basle.

JAY, *Garrulus glandarius*.—Plentiful, but very shy. In the woods near Baden (Aargau) I have occasionally come upon a flock, but on the first note of warning they all disappeared into the depth of the pine forest, without the screaming clamour Jays usually make when disturbed. At Felsinegg, where the pine woods extend to a great distance, I have found their feathers on the ground, but only once or twice got a glimpse of the bird.

NUTCRACKER, *Nucifraga caryocatactes*.—It was in the locality last named, however, that I had the great pleasure of being able for two or three days to watch the habits and mode of feeding of the Nutcracker. I have seen this bird, while walking over the Pass of St. Gothard, come down to the hazel trees, which are found on the lower part of the Pass about Amsteg, pick off a nut, and then fly to a stone and commence breaking it by repeated blows with his beak; but here at Felsinegg a party of six, two

old and four young ones, came every morning to a group of fir trees, *Pinus abies*, covered with cones, and remained for some time feeding on these. Occasionally I could see one fly off with a cone, and some descended to the ground. They do not appear to feed on the cones as the Crossbills do, but to snap them off first before getting the seeds out; and having had their breakfast they flew across, passing within twenty yards of where I was sitting to another and larger pine forest. I could easily distinguish the young birds, being of a kind of sooty brown, with only indications, as it were, of the white spots. The old birds were in full plumage, and one of them always came first, then the four children, and then the old mother or father bringing up the rear. They fly with a slow Jay-like flight, and without any noise. I came upon another, or perhaps the same, lot in an afternoon walk, some three or four miles away, in the middle of a large pine wood. It is quite surprising to see the great number of fir cones which lie on the ground under the trees, broken up by Squirrels, Nutcrackers, and Crossbills, particularly the two former. When sitting and sketching, I have watched the Black Squirrel come down from the trees and turn over cone after cone, occasionally finding one untouched, and I have no doubt the Nutcrackers do the same. Although I kept a sharp look out, and once or twice thought I heard their peculiar note, I never came upon any of the Crossbills.

GREEN WOODPECKER, *Gecinus viridis*.—Plentiful about the orchards round Zug and Lucerne. I was much disappointed at not seeing more of the *Picidae* in these forests, this species being the only one of this family observed.

TREE CREEPER, *Certhia familiaris*.—Also pretty plentiful in the same localities.

COAL TIT, *Parus ater*.—Seen about Felsinegg: there was always a colony together, which appeared to take a regular round daily, as always at the same place, at the same hour, I found them flitting from tree to tree searching for their food.

BLUE TIT, *Parus caeruleus*.—Very common about Baden and the orchards round Zug.

BLACKBIRD AND THRUSH.—In every thicket and garden, and very tame, particularly the former.

MISSAL THRUSH, *Turdus viscivorus*.—Collects in flocks early in September. I found a number of them in my walks around

Felsinegg, but (as is always the case with this bird) could never get very near. When they congregated together I counted over twenty in one flock.

WATER OUZEL, *Cinclus aquaticus*.—To be found on almost every river and stream. At Baden, near Brunnen, &c., I found a nest of this bird placed just at the entrance of a small tunnel which conveyed the water of the Seyon from Vallengin to Neufchâtel. I am afraid, after what has been seen of this bird when kept in confinement, he cannot plead guiltless of fishy proclivities. The young birds in the Zoological Gardens were extremely partial to minnows.

HEDGESPARROW, *Accentor modularis*.—Common at Baden, and I came upon it also at Felsinegg.

REDBREAST, *Erithacus rubecula*.—Always to be seen, with the last-mentioned bird, about the cultivated and frequented gardens and walks.

COMMON AND BLACK REDSTART, *Ruticilla phœnicurus* and *R. tithys*.—At Baden (Aargau) both were very plentiful; at Felsinegg the black species was most abundant. They are very tame, and allow you to come quite close to them. They are late roosters; I have often seen them hawking *Phryganie*, which are found in vast quantities on the Limmat till quite dark, and long after the Flycatchers and Wagtails have gone to bed. Why is Switzerland so very seldom mentioned in Dresser's 'Birds of Europe'? This country is quite passed over as the breeding-place of the Black Redstart. The figure of the female bird in Mr. Dresser's plate is not at all correct as to colour.

WHEATEAR, *Saxicola œnanthe*.—Pretty common at Felsinegg in September. I found a good number of them on the upper waste lands; but I do not recollect seeing one old male there; they appeared to be all females or birds of the year, and were evidently migrating southwards.

BLACKCAP, *Sylvia atricapilla*.—The only Warbler I saw near enough to identify.

WREN, *Troglodytes parrulus*.—Observed to be very common.

SPOTTED FLYCATCHER, *Muscicapa grisola*.—Very common everywhere. Up at Felsinegg I noticed it as late as the 10th September. At Baden in 1882 this bird was extremely plentiful; a pair had a nest under the verandah, which in the afternoon

was crowded with ladies and children, and close to the electric lamp, of which the birds took no notice at night. Every garden, almost every house, had its pair of Flycatchers. In 1883, from some cause or other, there were comparatively very few, but many more Redstarts.

WHITE AND PIED WAGTAIL, *Motacilla alba* and *M. lugubris*.—Frequented the banks of the Limmat at Baden. My attention was particularly attracted to the difference in plumage of the two species, more particularly in the colour of the back. I have counted as many as twenty of these birds on the wing at once, hunting after the *Phryganie* which hover over the Limmat. They would sit in rows under the terrace of the hotel,—and now and then one was snapped up by the Sparrowhawk,—and I could distinctly see that some of them were much blacker than others. *M. alba* was most numerous.

GREY WAGTAIL, *Motacilla sulphurea*.—Appeared also amongst the others.

YELLOW WAGTAIL, *Motacilla flava*.—On the 15th August we had a flight of these birds, which only remained three days, hawking flies in company with the other species; on the 18th they were all gone. A few days after the grey species disappeared, but the pied and white birds remained, and I left them still pursuing their prey.

YELLOWHAMMER, *Emberiza citrinella*.—Rather plentiful.

CIRL BUNTING, *Emberiza cirrus*.—On the 12th September, at Schaffhausen, I noticed a pair of these birds, very restless, and both having food in their beaks, in a secluded part of the grounds of the hotel. I could not discover the nest, but they evidently had young close by. Surely this was very late. The nest appeared to be among some low bushes and fir trees.

CHAFFINCH, *Fringilla cœlebs*.—Extremely common.

GOLDFINCH, *Carduelis elegans*.—A little colony along the banks of the Limmat, on the old railroad near Wettingen.

HOUSE SPARROW, *Passer domesticus*.—Everywhere on the lower grounds; none at Felsinegg.

TREE SPARROW, *Passer montanus*.—At Baden.

KINGFISHER, *Alcedo ispida*.—Not common. I only saw this bird twice on the Limmat.

SWALLOW, *Hirundo rustica*.—Remains very late; plenty were seen up to the end of September.

MARTIN, *Chelidon urbica*.—Began to congregate about the 25th August, and I did not see any after the middle of September.

SAND MARTIN, *Cotyle riparia*.—About the 15th August a large number of these birds arrived at Baden, and remained hawking up and down the river for three or four days and then disappeared.

SWIFT, *Cypselus apus*.—All left about the middle of August; there were plenty of them about the old tower and the church-steeple, but I could not detect *alpinus* amongst them. At Berne this latter species predominates, and it is a pretty sight to watch them gyrating and screaming round the tower of the Cathedral. I noticed one as late as September 22nd.

COOT, *Fulica atra*.—Amongst the many interesting sights at Lucerne are the Coots on the lake. When I first visited Lucerne this bird chiefly frequented the neighbourhood of the old covered bridge, and, above and below it, I one day counted fifty. Last year I could only find thirty. They had changed their locality, and were to be found chiefly near the new bridge and by the landing-places of the steamers, always on the look out, and sharing with the half-tamed wild ducks, the bread, &c., thrown to them by the passers by. They feed much on a water-plant which grows plentifully at the bottom of the lake, particularly where the rapid stream commences; it looks very like the American weed which has so encumbered our canals and rivers. It is amusing to watch them when thus feeding. Some of the old male birds, too lazy to dive for their own dinner, watch the younger ones busy at the bottom, and the moment they rise to the surface, with a beak full of the weed, give chase, and, like the Skua amongst the Gulls, seize the coveted morsel, which the fugitive is obliged to relinquish. Whilst watching them I saw one of these birds seize a Bleak and eat it. It happened thus: there was a great scamper amongst a large shoal of Bleak, arising from the dash of a Pike or Trout, and one appeared to be injured, and kept jumping out of the water. A Coot immediately rushed at it, seized and in a few moments swallowed it. In the fourth edition of Yarrell, we read, "if deprived of water, it (the Coot) will roost, as other land birds, upon any elevated situation." My hotel being close to the bridge at Lucerne, I went out every night between 10 and 11 p.m. to see the Coots. I found them all arranged along the beams which

separate that portion enclosed for the Swans, &c. They stood all of a row, some on one leg, some on both, but evidently in that position were prepared to pass the night. They are very late feeders, and the whole of them were not collected together till near 10.30; some stragglers were even later, but it appeared as if a place was assigned to each. Whilst watching them the "quack, quack" of the Wild Duck would be heard all around, numbers coming in from other parts of the lake. The Coot is a most interesting bird, and notice him diving! the pearly hue he has when under water leaving him as he comes to the surface. Then, half paddling, half flying—

"The wanton Coot the water skims,
Rocked on the bosom of the sleepless wave."

No one should leave Lucerne without visiting the Coots.

NOTE OF SOME RARE BRITISH BIRDS IN THE COLLECTION OF MR. J. WHITAKER.

As it is always interesting to know where rare and historical specimens are preserved, I have compiled the following list of uncommon birds in the collection of Mr. J. Whitaker, of Rainworth Lodge, Notts, hoping that it may be of service to other ornithologists.—OLIVER V. APLIN.

Falco islandus, Gmel.—Kirkwall, Orkney, 1876.

F. vespertinus, Linn.—Bempton Cliffs, near Bridlington, Yorkshire, July 6th, 1865. *Vide* 'Handbook of British Birds,' p. 87, and 'Handbook of Yorkshire Vertebrata,' p. 47.

F. aesalon, Tunstall.—A female Merlin killed at Ramsdale, Notts, in November, 1870, presents a curious appearance, being quite half as large again as an ordinary specimen. 'Birds of Nottinghamshire,' p. 7.

Circus cineraceus (Mont.)—Obtained near Salisbury, 1871.

Milvus iclinus, Savigny.—Shot by W. Wilson, at Sanday, Orkney, in April, 1877.

Scops giu (Scop.)—Renwick, Cumberland, May 15th, 1875. Recorded in 'The Field,' 22nd May, 1875.

Cinclus melanogaster, C. L. Brehm.—Shot near Southwell, Notts.

Oriolus galbula, Linn.—A male, Warwickshire, May, 1870, vide 'The Zoologist,' 1871, p. 2765; a female, Horsham, Sussex, 1872.

Cyanecula suecica (Linn.)—A red-spotted male Bluethroat is in a case with a male Redstart, and a label on the case, on the handwriting of Mr. Sim, of Aberdeen, runs as follows:—"Both birds were caught as they flew on board a fishing-boat about six miles off Aberdeen. The Bluethroat was captured on the 16th May, 1872." 'Handbook of British Birds,' p. 104.

Pastor roseus (Linn.)—Adult male, Ramsdale, Notts, Sept. 1856. 'Birds of Nottinghamshire,' p. 26.

Pyrhacorax alpinus, Koch.—A female example procured in Oxfordshire, and mentioned in 'The Zoologist,' 1881, pp. 442, 471, and 1882, p. 431.

Merops apiaster, Linn.—Two fine specimens. One killed at Stainsby Gardens, Derby, May 4th, 1879 (Zool. 1879, p. 461), and the other at Ingoldsby, near Bowes, Lincolnshire, July, 1872 (Zool. 1882, p. 149).

Cypselus melba, Illiger.—Finchley, August, 1860. Recorded in 'The Field,' March 13th, 1875, and 'The Zoologist,' 1879, p. 489.

Caprimulgus ægyptius, Licht.—Since taking my notes of this collection, a brief record, by Mr. Whitaker, of this interesting specimen has appeared in 'The Zoologist,' 1883, p. 374, and a longer account with notes on the species by Mr. Harting, in 'The Field' of Sept. 15th, 1883.

Syrrhaptes paradoxus (Pall.)—A male, one of four obtained at Farnsfield, Notts. Two females caught June, 1863, in rabbit-traps set for crows, in a potato-field near Mansfield. Their companions (some six or eight in number) remained about the place for upwards of a month. 'Birds of Nottinghamshire,' pp. 35, 36.

Tetrao tetrax, Linn.—A pair of the old Nottinghamshire stock, shot at Ratcher Hill, Mansfield Forest.

Tringa canutus, Linn.—In breeding plumage. Fountain Dale. 'Birds of Nottinghamshire,' pp. 44, 45.

Ardea ralloides, Scop.—Bestwood Park, Notts, July, 1871. Zoologist,' 1871, p. 2803, and 'Birds of Nottinghamshire,' p. 50.

Ardetta minuta (Linn.)—Scarborough, February 25th, 1879. 'Handbook of Yorkshire Vertebrata,' p. 50.

Phalaropus hyperboreus (Linn.)—One in breeding-dress, Ramsdale Pond, Notts, July 6th, 1843. 'Birds of Nottinghamshire,' p. 46.

Anser cinereus, Meyer.—One shot out of a flock of a score at Walling Wells by Sir J. White, June 29th, 1880.

Clangula albeola (Linn.)—Bessingly Beck, near Bridlington, Yorkshire, winter of 1864-5. See 'Zoologist,' 1865, p. 9659. 'Handbook of British Birds,' p. 161; 'Birds of the Humber District,' p. 177; and 'Handbook of Yorkshire Vertebrata,' p. 57.

Cosmonetta histrionica (Linn.)—Male, Filey, Yorks., autumn of 1862. Mr. Roberts, of Scarborough, saw some men throwing this bird into the sea for a dog to retrieve. They had found it dead on the shore. 'Handbook of Yorkshire Vertebrata,' p. 58.

Somateria mollissima (Linn.)—Shot near Nottingham, Nov. 16th, 1882; the only example procured in the county. Zool. 1883, p. 129.

Mergus merganser, Linn.—An adult male, Park Hall, Notts, 1876. 'Birds of Nottinghamshire,' p. 64.

M. albellus, Linn.—An adult male, Thornton Reservoir, Leicester, 1877.

Xema Sabinii (Leach).—Bridlington, Yorkshire, Oct. 14th, 1875. 'Handbook of Yorkshire Vertebrata,' p. 81.

Pagophila eburnea (Phipps).—Shot off the North Pier, Aberdeen, Nov. 17th, 1874.

Stercorarius crepidatus (Banks).—Mansfield, 1880.

Puffinus griseus (Gmel.)—Flamborough, Oct. 1881.

Amongst the hybrids in this collection I particularly noticed one between Goldfinch and Linnet, and another between Linnet and Greenfinch, obtained in Cambridgeshire (Zool. 1883, p. 302).

ORNITHOLOGICAL NOTES FROM DEVON AND CORNWALL.

BY JOHN GATCOMBE.

ON September 3rd, during a trip up the river Tamar, where few waders but Herons and Curlews were to be seen, I was much interested in watching the struggles of a Cormorant with a large fish on a mud-flat near the river, which it must have just caught, or possibly found left dry by the tide, but had the greatest difficulty in killing and swallowing. This was the first time I ever saw a wild Cormorant kill and eat a fish out of the water.

On Sept. 5th a Fork-tailed Petrel, *Procellaria leucorrhoa*, was picked up dead by a rural postman on the road near Cargreen, a village close to the Tamar. Its occurrence inland was no doubt due to the terrific gale which took place on the 1st of that month. It appeared to be a bird of the year, and in a most interesting state of change, the new dark slate-coloured feathers on the wings and other parts of the body contrasting strongly with the old rusty brown and weather-worn plumage of the previous season.

By the 8th September some Common Redshanks were to be seen in the markets, and a very young Black Grouse, which latter was no doubt bred on Dartmoor. A day or two afterwards, on my way to Exeter, I observed on the mud-banks of the rivers Teign and Exe many Herons and large numbers of Black-headed Gulls, both old and young. On the 13th quite a flight of Titlarks seem to have arrived on the coast, all in very bright and newly-moulted plumage. I noticed also some Cormorants, with white breasts and bellies, flying overhead, in which stage of plumage I have often remarked them in the autumn, and have no doubt that such birds are the supposed Northern Divers occasionally mentioned as having been seen standing bolt upright on the rocks. On the 24th numbers of Wheatears appeared on the coast, after a strong gale from the N.E. during the previous night, and large flocks of Scoters, *Edemia nigra*, I was informed, were to be seen in Start Bay.

On October 1st I heard of a white Spoonbill having been killed by a wildfowl-shooter on the St. Germans river, and sent to Mr. Vingoe, of Penzance, for preservation. This river seems

to be a favourite resort of the species when it visits us, as so many have been obtained there from time to time.

On October 2nd, wind north and very cold, flocks of Skylarks were seen crossing the Sound, flying N.W. Examined an adult Gannet, Arctic Tern, and young Storm Petrel (*Procellaria pelagica*) at the Stonehouse birdstuffer's, all obtained in the neighbourhood. The Petrel had been caught and brought into the house alive by a cat, from the garden of the late Mr. Charles Trelawny, situate in the centre of Plymouth, after a severe gale from the north. It was a very young specimen, still showing some of the nestling down, especially on the abdomen and under tail-coverts; the greater wing-coverts, too, were prettily tipped with white, forming a conspicuous bar across the wing.

On the 10th October I visited Looe and Polperro, and was shown the house in which the late Mr. Jonathan Couch lived, and the room in which he died, now converted into a Reading Room and small Library, called "The Couch Reading Room," *in memoriam*. When passing by the St. Germans mud-flats, in the train, I remarked a vast number of Curlews; a flock consisting of fully two hundred rose together at the report of a fowling-piece discharged from a boat on the river. I bought in the Plymouth market another young male hybrid between Pheasant and Black-cock, similar to the one described by me (Zool. 1879, p. 60). The skin is now in the fine collection of varieties and hybrids belonging to my friend Mr. Frederick Bond, of Fairfield Avenue, Staines.

A nice specimen of the Cornish Chough examined by me had been sent up from Padstow; in its stomach I found only the mandibles of beetles. Some Common Terns were forwarded for preservation from Starcross, on the coast of Devon, but I saw none near Plymouth during the past autumn.

A friend told me that, when cruising in his yacht off Plymouth Sound, he noticed a tremendous struggle in the water between a Cormorant and large eel, which had twisted itself so tightly round the bird's neck as to almost cause suffocation, but before getting his boat quite close enough, as he thought, to pick up the exhausted bird, it just managed, with some extra exertion, to swallow its prey and make good its escape.

Scaup ducks were rather plentiful during October. There were four young birds of this species at a poulterer's shop in

Devonport, and my friend Col. Marcon killed a young male assuming the adult plumage, on the river Yealm, near Plymouth; its stomach was distended with small spiral mollusks, mixed with the claws and remains of minute crabs.

On November 12th I observed three or four immature Black Redstarts near the Plymouth Citadel, but a pugnacious Robin having quarters in the same locality, to my great annoyance, constantly trying to drive them off, which he effectually did on their attempting to approach his domain. The following day I saw Redstarts at the Devil's Point, Stonehouse, and an old male with the others near the Citadel, the Robins again allowing them no peace.

On November 14th I saw another adult male Redstart near the Point. At the birdstuffer's there were some Owls, both brown and white, with one Short-eared Owl, the first and only specimen the stuffer had received for the season. The stomach of the Barn Owl contained three whole shrews with the remains of others. A great many Woodcocks were brought to the markets about this date, and I examined a nice male Lesser Spotted Woodpecker and Water Ouzel, both obtained in the neighbourhood of Plymouth.

The following albino varieties were observed or procured:— A white Swallow seen near Dartmouth; a white Bullfinch killed at St. Germans; and a white Linnet shot out of a flock of birds of the ordinary colour, in the neighbourhood of Plymouth, by my friend Mr. C. Clark, of St. James Place. This specimen, the prettiest variety of Linnet I ever saw, was of a delicate pure white, with just a brownish feather on either side of the tail.

Kingfishers were very plentiful last autumn, and many, I am sorry to say, found their way to the local birdstuffers.

During the first week in December many Black Redstarts were observed on the coast; one was killed on the Laira embankment near Plymouth, and others observed in different localities. On the 10th a Long-eared and a Short-eared Owl were brought to the Stonehouse birdstuffer from Cornwall, the latter being only the second recorded during the season. White and Brown Owls, I am sorry to say, are almost daily brought in, and the stomachs of all I have examined were invariably filled with the remains of rats and mice. Two specimens of the Cornish Chough were also received, both of which were caught in "gins," and

had their legs badly broken. I found the stomach of one quite empty, but that of the other was crammed with the pupæ of some dipterous insect. A Shelldrake was killed in the neighbourhood, the only one I heard of last year. Numerous Redshanks were to be seen in the markets, and Kingfishers seemed plentiful, judging from the numbers sent to be stuffed.

HABITS OF THE HARVEST MOUSE.

BY G. T. ROPE.

HAVING at various times kept the Harvest Mouse, *Mus mes-sorius*, in confinement, I have observed certain little peculiarities in their habits and manner of life which may be worth recording. First, as to their food and manner of feeding, I have invariably found them exhibit a marked preference for wheat, rejecting while that is to be had all other kinds of grain. They will, however, eat both oats and barley when their favourite food is withheld. Unlike most of the British mice and rats in a state of captivity, they do not care for bread, though perhaps they might eat it if kept without corn. I have found *M. sylvaticus* and our two smaller Voles prefer bread to almost any other kind of food. Dr. H. Laver, of Colchester, in a communication relating to the habits of these mice in Essex, which lately appeared in 'The Field,' states that the stacks in which they are most likely to be found, in his neighbourhood, are those of oats and wheat, and sometimes barley; adding that he finds them more frequently in corn stacked in the fields, than in that which is carted home. In this district I have found them as often in stackyards attached to farm buildings as in outlying stacks, and principally in those of wheat, oats not being much grown in these parts. Last year a great many were captured here in a barley-stack, but wheat-stacks seem to be their principal winter rendezvous in this district. After the stacks are threshed, these mice often remain in the straw throughout the winter. Their manner of disposing of a grain of wheat is as follows:—Sitting up and holding the grain in a horizontal position between the fore paws (one being placed at each end), the little animal begins dexterously and rapidly turning it round, like a wheel on its axle, at the same time applying to it the edge of his sharp incisors, and by their means

slicing off the outer skin or bran, and letting it fall like the shavings from the tool of a wood-turner at his lathe, to whose operations the whole process bears a striking resemblance; nor does he begin eating till he has reduced the grain to a perfectly white and almost cylindrical body. On placing a Harvest Mouse for a few minutes in a vessel containing broom-seed, I was surprised to see it, after searching about among the seeds, pick up one and devour it.

As to their carnivorous and insectivorous propensities, these mice are well known to be fond of flies, of which they will devour several kinds; they catch them in a singularly adroit manner, and without the least apparent effort or exertion. On a fly being put into the cage, the mouse, instead of rushing about after the insect, appears at first to take no notice whatever of it; but when the latter, in buzzing about the cage, approaches within its reach, in the twinkling of an eye he has it firmly grasped in his paws, and it is devoured almost before one can realise the fact of its being caught, the wings and legs being generally rejected. These mice will probably devour many other insects, and I have seen woodlice eaten by them. In common with *M. musculus*, *M. sylvaticus*, and *A. agrestis*, the present species appears to possess carnivorous tastes, and cannot honestly be declared innocent of the charge of cannibalism; one of mine, having died from the effects of an accident, had its head eaten by its companion. The prehensile power of the tail is certainly more perfectly developed in this than in any other British species of its genus; though not altogether wanting in *M. musculus*, as may be easily seen in the pole-climbing feats of the trained mice so often exhibited in the streets of London and elsewhere. The voice of the Harvest Mouse is not pitched so high as that of the Common Mouse, and more resembles a harsh grating chirp than a squeak. I have never as yet been so fortunate as to get this little animal to breed in confinement, but do not as yet despair of success.* I find that even under the disadvantage of a square sleeping-box, with which my only present example (a female) is provided, and which is much larger than necessary for so small a tenant, the superior

* In 'The Field' of Jan. 2nd, 1875, will be found an account of some young Harvest Mice which we had at that time in confinement, supplemented by some interesting remarks by the late Dr. J. E. Gray on the behaviour of a second litter which we had presented to Mrs. Gray.—ED.

architectural skill possessed by this little creature, as compared with other rats and mice, is decidedly apparent. The bedding (consisting of hay alone), though merely stuffed into the box so as nearly to fill it, has been arranged so as to form a round and compact nest, about the size of those built in the spring and summer to serve as nurseries, but differs from these latter in possessing two opposite entrances, so that if disturbed at one the mouse makes her escape at the other. The nest is lined with small particles of hay, split by the little animal's teeth, and thus rendered softer and more suitable for the purpose. These mice seem to have a decided partiality during the summer months for the borders of ditches, building their nests among the tall rank herbage growing in such situations, in low bushes, or even in the reeds growing in the ditch; see 'Zoologist,' June, 1881, p. 233, where a very interesting account is given by Prof. H. Schlegel of a colony of Harvest Mice, discovered by him near the town of Leyden, containing over fifty nests, some of the colonists having even adapted to their own requirements the nests of aquatic warblers built in the same spot, by covering them with a cap of grass. Of the two nests, which is all I have been fortunate enough to find up to the present time, one was built in a low blackthorn bush growing by the side of a ditch, and I once picked up a freshly-killed mouse of this species in a similar situation; the other nest was in a plant of the common broom. I am not aware that this habit of congregating during the breeding season has ever been observed in England. Although a most accomplished climber, every movement being performed with consummate grace and ease, this species lacks the extraordinary speed and activity which is so characteristic of our familiar little household thief, and is much more easily pounced upon when discovered. I have repeatedly seen a Harvest Mouse support the whole weight of his body on the tail, for a second or so, in trying to climb out of an upright glass jar, the fore paws alone merely touching the glass to preserve the animal's balance.

This little creature, like its congeners, *M. musculus* and *M. sylvaticus*, bites savagely when handled, and, from a habit (common to all three) of hanging on like a bull-dog, at the same time moving the jaws about while the teeth are still in the wound, makes one a little cautious after the first experience, especially where a sound finger is an object.

The colour of the Harvest Mouse, though very beautiful, is in

most works given in rather general terms, without going much into details; and gives the idea of a uniform tint prevailing on the upper parts, whereas, in all the specimens which I have examined, the bright sandy yellow or orange fawn of the upper part was purest and brightest towards the tail; being focussed (so to speak) on the hind-quarters just at the root of the tail, and extending underneath as far as the vent. This bright but delicate tint shades off gradually, above, into the light yellowish- or orange-brown, which is the prevailing colour of the upper parts, the latter hue becoming again brighter and lighter as it extends downwards to meet the white of the under parts. The fur of the cheeks and that surrounding the ears is also bright sandy or orange; the hams are nearly always of that colour, varying, however, in intensity in different individuals. There is considerable variation, too, in the colour of the upper parts, the brilliant fawn tint being more or less wanting in some specimens, whereas in others it is more generally diffused, and less concentrated on the hind-quarters, being, I fancy, most pronounced, as a rule, in the female sex; but of this fact I cannot speak positively, not having had the opportunity of examining anything like so many females as males. In a very large and probably old male, which I kept lately in a cage with others, the orange tint was almost altogether absent, the fur of the upper part being of a nearly uniform brown, of a similar shade to that of a very old example of *M. decumanus*, a species, by the way, which appears to me to approach nearer in the form of the head and general expression of countenance to the Harvest Mouse than does either *M. musculus* or *M. sylvaticus*.

Another male had the middle of the back of a dark red-brown, inclining to purple; this purplish shade, which in a less degree is visible on the back of most specimens, being produced apparently by an unusual abundance of the longer and coarser hairs which are found on that part of the body. The long and beautifully-formed feet are covered with fine hairs of a yellowish colour, shading off on each side to white, the under surface being naked. The tail is scantily furnished with short hairs as far as the extremity.

The average dimensions of seven adults, irrespective of sex, is as follows:—Length of head and body, 2 in. $7\frac{1}{2}$ lines; length of tail, 2 in. 1 line; total length, 4 in. $8\frac{1}{2}$ lines.

NOTES AND QUERIES.

Wanton destruction of Animal Life in Shetland.—The 'Shetland Times' for the 12th January last contains the following mischievous advertisement:—

"DESTRUCTION OF VERMIN.—Mr. Urquhart will pay the undernoted prices for Vermin brought to him:—1s. for every Gyr or Peregrine Falcon, Osprey, Buzzard, Kite or Hobby; 6d. for every Black-backed Gull, Raven, Merlin, and every species of Hawk and Harrier; 3d. for every Hoody Crow; 6d. for every Weasel.

By order of Committee of Commissioners of Supply.

Lerwick, 12th January, 1884."

If it is not too late to protest against such wholesale slaughter, we would urge some of our northern correspondents to exert their influence to avert the blow which seems destined to fall upon the fauna of Shetland. If the fate of the above-named animals is sealed, then it is, perhaps, as well that Dunn's 'Ornithologist's Guide' and Saxby's 'Birds of Shetland' should have been written while the island still had a fauna of its own.

Method in recording Observations.—In sending you the record of a specimen of the Little Gull, *Larus minutus*, observed in Scotland, I wish particularly to direct the attention of British ornithologists to the necessity now-a-days of recording such occurrences on some methodical plan, as all such records have direct and often most valuable bearing upon the causes and reasons of migratorial phenomena. I have an idea that if the proprietor of 'The Zoologist' would issue to his principal ornithological contributors a printed form for such records, to ensure uniformity, each single sheet being intended to contain full particulars of each separate occurrence or group of occurrences, a very great and very useful assistance would be rendered to students of migration generally, and to our British Association Committee in particular. The Americans have taken up the subject keenly, and you may depend upon it they will not be long before they have some such uniform method for recording issued to hundreds of collectors and contributors over the whole States and Canada. I am in correspondence with Mr. Merriam, the Secretary of the Migration Committee of the American Ornithologists' Union, and he means work. If Mr. Newman sees the advantage of the above suggestion, let it be begun with a New Year, and issue to those desiring forms along with the January or February number of 'The Zoologist.' These forms could be supplied gratis singly, or to order in blocks or with counterfoil, for the recorder's own use, in lots of ten, twenty, thirty, or more. At the end of the year each recording ornithologist would have a complete list of all occurrences in his own district on his counterfoil, and the Editor of 'The Zoologist'

the duplicates for publication. Had this been done during the past few years our records would long since have solved the mystery of migration—of this I feel firmly convinced. A volume of such forms would soon come to be indispensable to the working ornithologist.—JOHN A. HARVIE BROWN.

[This communication being signed also by Mr. John Cordeaux, the Secretary of the British Association Committee on the subject of Migration, we assume that he approves of the scheme above mentioned.—ED.]

The following is the “form” suggested:—

*Form for more uniformly recording the Occurrences of Rare Birds
or other Migrational Phenomena.*

Date.	Locality.	Species.	Age: adult or young.	Sex.	Alone or in a flock.	With its own species or others.	Direction of Wind and strength.	Prevailing Wind for past three or four days.	Weather at time of cap- ture: Mist, Snow, Rain, &c.
Nov.	N. Uist	<i>Larus minutus</i>	Juv.	?	Alone	?	S.W.	S. & W.	Clear

REMARKS.—This rare British bird was shot at Newton, N. Uist, by Mr. John MacDonald, factor there. It had been seen previously on Bunera Island, Sound of Harris. It is a bird of the year, and when obtained was found to have one foot wanting. Flying southwards at the time it was shot.

NOTE BY MR. CORDEAUX.—“Although the Little Gull is a rare wanderer to the West coasts of Scotland, seldom a year passes without examples being recorded on the East coasts of Great Britain, more especially in the neighbourhood of Flamborough Head, and sometimes in very considerable numbers. Thus, in the winter of 1869-70, after a terrific three days' gale from the east, on February 12th, 13th and 14th, twenty-nine were shot south of the headland, nineteen of which were old birds in winter plumage. It occurs in large numbers in the neighbourhood of Heligoland in the autumn. On September 5th, in 1880, enormous numbers were seen on the water near the island.”

[Before any steps are taken to carry out Mr. Harvie Brown's suggestion, it would be desirable to know the views of other correspondents on the subject. At present it is our impression that it would not meet with universal favour. Many would find it irksome to have to record their facts in so formal a way, and we must say, candidly, that such formality would in our opinion detract very much from the pleasure which we now derive in perusing the original observations which are received from all parts of the country.—ED.]

Prosecutor of the Zoological Society.—We learn that Mr. Frank E. Beddard, M.A., of Oxford, Naturalist to the 'Challenger' Commission, has been selected out of thirteen candidates for the post of Prosecutor to the Zoological Society of London, in succession to the late Mr. W. A. Forbes. Mr. Beddard was a pupil of the late Prof. Rolleston, and for the past year has been employed on editorial and other work connected with the issue of the official reports on the scientific results of the 'Challenger' Expedition. He has also been entrusted with the examination and description of the *Isopoda* collected by the Expedition.

MAMMALIA.

The Burmese Elephant at the Zoological Gardens.—By the time these pages are in the hands of our readers most of them doubtless who are within reach of the Zoological Gardens, Regent's Park, will have gratified their curiosity by inspecting the singular-looking Elephant which is at present on view there, and which has been imported at considerable trouble and expense by Mr. P. T. Barnum, from a village called Doang Damee, in the State of Karennee, a mountainous country lying to the north-east of Pegu. For those who, residing at a distance, may not have an opportunity of seeing the animal, the following description of it, communicated to 'The Times' by Professor Flower, F.R.S., President of the Zoological Society, will doubtless prove of interest:—

"The Burmese Elephant, belonging to Messrs. Barnum, Bailey, and Hutchinson, now deposited in the Zoological Society's Gardens, Regent's Park, is apparently not quite full grown, being between 7 ft. and 8 ft. in height, and has a well-formed pair of tusks about 18 in. in length. It has a remarkably long tail, the stiff bristly hairs at the end of which almost touch the ground. The ears are somewhat larger than the ordinary Indian Elephant, and are curiously jagged or festooned at the edges; whether as a natural formation or the result of early injuries it is difficult to say. It is chiefly remarkable, however, for a peculiarity of coloration which is quite unlike that of any Elephant hitherto brought to this country. As is well known, the special colour of the skin of all animals depends upon the presence in the deeper layer of the epidermis, or outer skin, of certain minute dark particles or 'pigment corpuscles,' which obscure or modify the pale pinkish colour of the true skin beneath. In this Elephant the general surface of the integument is quite as dark, if not darker than that usually seen in its kind, being, perhaps, of rather a more bluish or slaty hue. There are, however, certain definite patches, disposed with perfect bilateral symmetry, in which the pigment is entirely absent, and the skin is of a pale reddish brown or 'flesh-colour.' These patches are of various sizes, sometimes minute and clustered together, producing only an indistinct mottling of the surface, sometimes in large clear spaces, but which are

mostly, especially at the edges, dotted over with circular pigmented spots of the prevailing dark colour about half an inch or more in diameter, which give a remarkable and even beautiful effect. The largest and clearest light-coloured tract is on the face, extending from the level of the eyes to the base of the trunk. A few white patches can be detected at various parts of the dorsal surface of the trunk, and more on its under surface. There is a very distinct and circumscribed oval light patch behind each eye. Another, which is larger and more diffused and speckled, is seen upon each side of the neck, behind the ears, and extends to the throat and chest, so as to form a sort of collar. The eyes themselves are of the usual colour and surrounded by normally pigmented skin. The free border of the outer surface of each ear, extending inwards to the breadth of 6 in. in the middle part, is light coloured, but variegated with round dark spots. The greater part of the under surface of the ear is light. A group of small, not very distinct, uncoloured spots can be detected on the outer side of the fore limbs, above the elbow joint, and there is a similar one, still less distinct, on the outer side of the upper part of the hind limbs. The hoofs are of a pale horn-colour, with a few longitudinal dark streaks. The animal is therefore not a pale variety of the ordinary Elephant, as some have supposed the so-called 'White Elephant' to be, but one characterised by a local deficiency of the epidermic pigment, in symmetrically disposed patches, and chiefly affecting the head and anterior parts of the body. It does not result from any disease of the skin, as has been suggested, but is doubtless an individual congenital condition or defect. If Elephants are prone to such a condition, it is easy to believe that sometimes it may exist greatly in excess of that shown in the specimen now exhibited, and if complete and extending over the whole of the integument, as well as the tissues of the eye, would constitute true 'albinism.' It is perfectly clear that the skin of an Elephant could not under any circumstances present the milky whiteness some of us have lately been picturing to ourselves, as this one clearly shows what may be called the 'uncoloured' tint of its skin, strongly tinged by the hue of the blood circulating within its tissues. Unpigmented hair or feathers are pure white, hence albinism in a furred or feathered animal produces a perfectly white effect, which the almost naked skin of an Elephant can never show. Such local deficiencies of pigment are common enough in domestic animals, and are occasionally met with in the dark races of men. They are also by no means unknown among wild animals, but very rarely present the perfect bilateral symmetry noticeable in the very curious and interesting specimen now to be seen in the Zoological Society's Gardens."

Badger in North Yorkshire.—On the 5th December last the Bedale hounds met at Sleningford Park, the seat of Mr. John Dalton, six miles from Masham and four from Ripon. The covers having been drawn blank,

a terrier was sent up an artificial earth which sometimes holds a fox, but it shortly emerged, bearing signs of having come off second best in an underground conflict. A second terrier was then procured, and both went up the earth. A confused scuffling was heard, and soon both dogs appeared, having been unable to dislodge the occupant. Spades were now brought into requisition, when to the astonishment of all present a fine Badger bolted, passed right through the pack standing round, and escaped in the surrounding cover, the hounds not owning the scent. It is many years since a Badger has been seen in the neighbourhood, though they were once plentiful.—THOMAS CARTER (Burton House, Masham).

The Depredations of Squirrels.—Whilst walking through an old plantation here a few days ago my attention was directed to a couple of Squirrels busily engaged in depriving a cluster pine of its cones. As the cones were quite green and hard, I was determined, if possible, to find out their reasons for taking the cones. This, however, was apparent, for lying at the bottom of the tree were several cones gnawed to the heart and all the seeds extracted. The cones were gnawed through at the base and carried by the Squirrels to a neighbouring spruce tree, under the dense shade of which they greedily devoured the seeds from the cones. Some of the cones were too heavy for them to carry, and these they let fall to the bottom, where, no doubt, they were feasted on at leisure. Here the Squirrels are very destructive to the young buds of the horse-chestnut, indeed to such an extent that we have several times had to put a stop to the mischief. Lime trees often suffer severely by having the bark torn from their branches, evidently as material for nest-making, and the holly occasionally is treated in a similar manner.—A. D. WEBSTER (Llandegai).

Black Rat in Devon.—During the last week of December I found a specimen of the old English Black Rat, *Mus rattus*, lying dead in the street at Devonport, which I secured and took to the taxidermist for preservation. Besides the difference of colour, the ears and tail of this species are much larger and longer, in proportion to its size, than those of the now much too common Brown or Norway Rat, *Mus decumanus*.—JOHN GATCOMBE (Stonehouse, Devon).

Destruction of Trees by Hares and Rabbits.—A writer in the new weekly journal 'Woods and Forests,' lately started by the accomplished editor of 'The Garden,' remarks:—"It is difficult to get two people to agree as to the trees with which Rabbits and Hares meddle. Some experienced planters say that Rabbits and Hares cut *Pinus laricio* very much if planted small, but do not touch *P. austriaca*. Now, as for the latter, I can confidently assert that they cut it more than any other of the pine tribe. With me they have attacked and thoroughly destroyed fine plants of it four feet and five feet high. A neighbour who has planted

P. laricio largely (I have none except guarded) says that it is rabbit-proof, and, on his assertion, I am planting some hundreds of it this season. The fact is, I believe, in a really severe season Rabbits will attack anything,—in a deep snow I have had yews eaten down,—but in the generality of years certain things escape.” Another writer in the same journal (Dec. 12th) says:—“I have hit upon a good material for protecting the bark of young trees from the attacks of Hares and Rabbits, and one which can be readily applied. Virgin cork, so much employed in the construction of Ferneries, and which can be easily placed round the stems of young trees, and attached in such a way that the attacks of Hares and Rabbits will be rendered ineffectual. The mischief caused to specimen trees planted near dwelling-houses, in parks, or on lawns, by cats and dogs, &c., may also be prevented by the same means. I first fix the pieces in their proper position, and then fasten them together with wire or strong twine, an operation which can be done at a trifling expense; but, of course, such tree-protectors might be made to close round the stems, and open and shut by means of hinges.” Apropos of forestry, we observe that in the same number of this new periodical (pp. 28, 29) an extremely ingenious instrument for measuring heights of trees, known as “Kay’s Dendrometer,” is described, with illustrations. It is to be obtained of Messrs. Dickens & Co., 1, Waterloo Place, Edinburgh, and we imagine that some of our readers would find it both useful and amusing in determining the heights of birds’ nests.

Bottle-nosed Dolphins at Plymouth.—On December 15th I examined two immature Bottle-nosed Dolphins, *Delphinus tursio*, which had been captured in shallow water on the mud banks of Hooe Lake, near Plymouth, one measuring eight feet nine inches, and the other about eight feet in length. Their beaks or snouts were much shorter and thicker, in proportion, than those of the Common Dolphin, *Delphinus delphis*, and the teeth much less numerous, there being only about twenty-five in each jaw. These were not truncated, as would have been the case, I believe, in older animals; the pectoral, dorsal, and caudal fins were also smaller in proportion to the animal’s size, and the colours on their bodies much more uniform, without any signs of the wavy lines so often seen on the sides of the more common species. They were both females. *Delphinus tursio* is, I think, rare on our coast. The only one I ever before recorded was driven on shore under the Plymouth Hoe a few years since—an adult male, twelve feet long, with truncated teeth, the skull and bones of which are now in the possession of Mr. W. Header, Union Street, Plymouth.—J. GATCOMBE (Stonehouse).

BIRDS.

Mr. Gunn’s Lesser Terns at the Fisheries Exhibition.—My attention has been drawn to a notice in ‘The Zoologist’ for last November (p. 463) by Mr. E. Cambridge Phillips, of the collection of stuffed birds and fish in

the late Fisheries Exhibition in London, in which all due credit is given to Mr. Gunn, naturalist, of Norwich, for his extensive series of fish-eating birds and cases of stuffed fish, the branch of taxidermy in which he chiefly excels. Special mention, however, is made by Mr. Phillips—and in other journals I have remarked similar comments—of Mr. Gunn's case of Lesser Terns, a sensational group most likely to attract attention; but as, with regard to that particular case, Mr. Gunn seems inclined to absorb all the credit due to the sentiment and design, in justice, at least, to a Norwich birdstuffer who has been dead some years, I must ask permission to explain whence Mr. Gunn got his inspiration, and how such a group of Terns happened to form a part of his collection. More than twenty years ago I visited Salthouse, on our Norfolk coast, where, at that time, a large colony of Lesser Terns bred on the beach, and, desirous of having a pair, with the eggs, for my collection, and little contemplating the sad rebuff which my collecting fit would experience, I watched a pair to their nest and shot one as they rose. The bird fell dead; its mate, unscared by my presence and the noise of the gun, hovered low over the fallen victim, and once even attempted to lift it up by the bill. This was "too too," and I killed the bereaved one to end its sorrows, though not my vexation at the result of the first, thoughtless, shot. Thinking over this scene, it struck me that a warning group might be made if the birds were arranged in a case, in exact imitation of what I had witnessed, with the eggs in a hollow amongst shingle, gathered on the beach. Making a rough sketch of what I wished to have represented I took it to my then birdstuffer, Mr. John Sayer, of Norwich (to whom Mr. Gunn was formerly assistant), and from my drawing he executed the beautiful case in my possession, which has been so generally admired, and which, amongst my other exhibits in the Norwich Fisheries Exhibition, in 1881, attracted special notice. Whether Mr. Gunn, whose collection, at the Drill Hall, was arranged just opposite mine, observing this fact, thought that a similar group would be an attractive feature amongst his own cases in London, I must leave; but with the exception of the stuffing of his own birds, slightly varying the position of the hovering Tern by suspending it by the *tail* instead of the *wing* (which Sayer did in the first instance, but altered at my suggestion), and placing *four* eggs in the nest instead of *three*, a mistake pointed out by Mr. Saunders, in his paper in 'The Ibis' (1883, p. 352), neither the sentiment nor the design is Mr. Gunn's more than a picture painted from the work of some "old master" (to make the simile correct), with a single figure, or tree in an altered position, could be called an original! I have, of course, no copyright in my own case of Terns, though I have heard that Mr. Gunn, himself I presume, fearful of imitators, has registered all his designs (?); and in his Catalogue (p. 18) appears the following entry:—"Case 122. LESSER TERN.—Pair of adult birds and

nest of eggs, Norfolk, 1879. This group is entitled 'The Widowed Bird, and illustrates the well-known fact of the living bird hovering over its dead or wounded partner.' Now, it so happens that two or three of my own friends, who had seen Mr. Gunn's Terns in London (not noticing the altered position of the hovering bird), have asked me whether I lent my case to Mr. Gunn for exhibition, *because it was his own work*. I may state, however, that Sayer did execute a copy for another customer, with my permission, though, like most *replicas*, it was not equal to the first. This, if I remember right, was not very long since in Mr. Gunn's hands to dispose of. On the principle, therefore, of "*Palmam qui meruit ferat*," the design, unquestionably, is not Mr. Gunn's; the sentiment, perhaps, may be traced home in the following couplet which I wrote at the time, and had placed on the front of my case "to point a moral":—

Have they no feeling? or does man pretend
That he, alone, can make or mourn a friend.

Now, it has been said that "imitation is the sincerest form of flattery." I ought to feel proud, therefore, that Mr. Gunn has appended the following lines to the entry of Case 122 in his Catalogue:—

"Oh, pity the sorrow of a lonely mate
Whose partner met with a cruel fate;
And your voice in future protesting
The wanton destruction of birds when nesting."

—HENRY STEVENSON (Norwich).

Wildfowl at Aldeburgh.—With regard to Mr. Rope's statement (Zool. 1883, p. 496) concerning the breeding of the Shoveller near Leiston, I may say that while at Aldeburgh last summer I saw at least twenty Shovellers, both mature and immature, in the poulterers' shops, and naturally concluded that the immature birds had been bred in the neighbourhood. I was, however, surprised to see amongst them an immature Gadwall, which I purchased. I afterwards procured an immature Pochard; and, after I had left Aldeburgh, a male Pintail, in summer plumage (shot on September 17th), was sent up to me. I saw an immature Great-crested Grebe that had been shot by a gunner the summer before last, and another that had been shot on the Alde River. On August 7th a fisherman brought me a nearly mature Red-necked Grebe in summer plumage that he had shot on the Alde River.—THEO. LISTER (Erfurt Lodge, Greenwich).

Pale-coloured Kestrel from Skye.—Referring to Dr. Saxby's remarks ('Birds of Shetland,' p. 28) upon "the exceedingly pale and faded appearance of the plumage of Kestrels killed in Shetland, especially in autumn," I may mention that a specimen which my friend the Rev. H. A. Macpherson sent me in May last, from the north-west coast of Skye, exhibited this peculiarity

in a marked degree. It was a fairly old male, with bluish head and tail : this colour was very pale, and the "red" of the body was really more of a yellowish brown, and presented a most washed-out appearance. It was also a very small bird, but, owing to the warm weather and delay in transit caused by the railways, it arrived in such an advanced state of decomposition that I was unable to take any measurements. — OLIVER V. APLIN (Great Bourton, near Banbury).

Food of the Stone Curlew.—On skinning a Stone Curlew the other day I remarked the stomach distended with some hard substance, and, on opening it, found that it contained an entire *Helix variabilis*, the diameter of which was about one inch and height about five-eighths: the substance of the shell of this species is thick. The stomach contained nothing else, nor did there appear to be room: the mollusk was slightly digested, and the epidermis around the apex of the shell had been removed by the action of the gastric juices. The bird was fat and in good condition; it must have experienced considerable difficulty in passing the shell down the gullet.—E. F. BECHER (Malta).

[In many gallatorial birds the gullet is very distensible. We have taken a number of cockles of large size with the shells entire from the stomach of a Curlew, and wondered how they could have been swallowed whole.—ED.]

Great Grey Shrike at York.—On November 3rd, 1883, my father saw a bird in our grounds which, from his description as to the colouring, note, &c., must have been a Great Grey Shrike. It had been seen about the place for some few days, though after the 3rd I could hear nothing more of it. A week or so after this a Great Grey Shrike was killed in the immediate neighbourhood of this city, and I was shortly afterwards able to examine it. I found it to be a female of the northern type of *Lanius excubitor*, i. e., *Lanius major* of Pallas. This is the second instance which has come under my own notice of the capture of the above type in our county. The other one, which is now in my collection, was taken five or six years ago only a few miles away.—J. BACKHOUSE, JUN. (West Bank, York).

American Bittern in Sussex.—A specimen of this bird was shot from a patch of reeds near Amberley, in this county, on November 30th last, by a man of the name of Knight, who attempted to stuff it, but, making a mess of it, the bird was handed over to Pratt, the naturalist, of Brighton. It proved, on dissection, to be a female, and the stomach was quite empty. The flesh had not been taken out from the wings, and it was quite fresh when I saw it. It is now in my collection.—W. BORRER (Cowfold, Sussex).

Records of the Hoopoe in Hampshire.—A slight mistake occurs in my note on this subject (p. 28) which I should be glad to have corrected, as it rather alters the meaning. In the fourth line from the bottom

"'s birds" (I probably omitted it in my copy) should be inserted after Tunstall, so that the sentence would read "and probably Tunstall's birds did not either."—OLIVER V. APLIN (Great Bourton, near Banbury).

[Our correspondent appears to have overlooked the remarks on this subject made by Prof. Newton, who in a couple of lines (Yarrell's 'British Birds,' 4th ed. ii. p. 421) has anticipated the suggestion that the records by Tunstall and Gilbert White possibly referred to the same bird.—ED.]

Lapwing perching.—The note on Snipe perching (p. 28) reminds me of a somewhat similar occurrence on the part of another of the Grallatores which I witnessed, and which perhaps it may also be worth while to record in the pages of 'The Zoologist.' I was making a walking tour through parts of Wharfedale, Airedale, and Nidderdale (Yorkshire) in July, 1875, and, when in the neighbourhood of Appletreewick, in Wharfedale, a flock of Lapwings and Starlings rose from a pasture on my approach. They flew only a short distance, I think to the next field, and one of the Lapwings alighted on a stone wall, where it remained for a short time, and then rejoined its companions. I mentioned the fact, which at that time was to me unique, in a letter to the late Mr. W. C. Hewitson, who informed me that it was not an uncommon thing with some waders which do not habitually perch in this country to do so in Norway, but that there they had generally been observed to perch on trees.—J. E. PALMER (Lyons Mills, Straffan, Co. Kildare).

Little Bustard in Co. Cork.—In 'The Field' of Dec. 8th I notice the reported occurrence of the Little Bustard, *Otis tetrax*, near Youghal, mentioned by Mr. H. F. Allin. Will any of your readers kindly tell me whether this is the first of the species observed in this county. I do not find the name of this bird in Dr. Harvey's 'Fauna of Cork.' By-the-by, has any naturalist continued observations or published a supplemental list since the publication of Dr. Harvey's work? — C. DONOVAN, JUN. (Myross Wood, Leap, Co. Cork).

Great Grey Shrike in Somersetshire.—A very good specimen of the Great Grey Shrike, *Lanius excubitor*, was shot near Clevedon on Dec. 15th, 1883. Although this may not be considered a very rare bird in this county, it is nevertheless far from common.—ROGER FORD (Wraxall Court, Somerset).

[Mr. Cecil Smith, in his 'Birds of Somersetshire,' p. 46, remarks upon the rarity of this species in his county, and states that at the date of publication (1869) only two specimens had come under his notice. In Cornwall also it is regarded as a rare winter visitant.—ED.]

Curious Variety of the Blue Tit.—Towards the end of November last a singular variety of the Blue Tit was captured near Oxford. Its colour is a uniform dull yellow all over, very similar to that of a Canary, but the

species could be immediately recognised by its bill and feet, and the feathers being slightly elevated on its head. It has since been preserved for the Museum.—J. R. EARLE (15, Norham Road, Oxford).

The Plumage of the young Kestrel.—Having had ten or twelve young Kestrels, mostly from different districts; within the last four years, I am pleased to be able to corroborate the fact, mentioned by Mr. F. C. Aplin in your December issue, that the young males have the blue tail, and are thus in the nest distinguishable from the females. Besides the authors mentioned by Mr. Aplin, the Rev. F. O. Morris, in his 'British Birds,' falls into the same error in stating that until after the first moult there is no difference in the plumage of the sexes.—HUGH TURNER (Ipswich).

Scaup Duck in Notts.—On December 1st I shot a female Scaup on Mansfield Reservoir; it was quite alone, and, as this piece of water is about forty miles from the sea, I think its occurrence worth recording. This is only the third or fourth instance in which the Scaup has been killed in this county.—J. WHITAKER (Rainworth Lodge, Mansfield).

Strange behaviour of Starlings.—On November 7th I shot at three Starlings feeding close together, but separated by a few feet from the flock to which they belonged. I should think I was distant from them about thirty yards. Of course at the report of my gun every bird, with the exception of the two I killed, took wing. To my surprise, however, three birds turned back, and then the whole flock returned, and for about a minute hovered over the dead ones. They seemed anxious to settle, but did not do so, the nearest birds being about two feet above their dead companions; they then took flight to return no more, though I waited to see what would be the result. Was it curiosity or compassion which impelled their return? —W. BECHER (Hill House, Southwell, Notts).

Hybrid Pheasants.—Early in December last a Mr. Smith, of Croydon, shot, near Woking, three hybrid Pheasants, a cross with the common fowl, which were sent for preservation to Charles Thorpe, of South Croydon, in whose shop I saw them in the flesh; two were males, nearly black in colour, and much larger than either parent, one weighing 4 lb. 9 oz., the other over 4 lb.; the third, a hen, resembled the Pheasants, and weighed 2 lb. 14 oz.—PHILIP CROWLEY (Croydon).

Rare Birds in Lincolnshire.—Allow me to record the occurrence in Lincolnshire during the past year of the following birds, which have passed through my hands between January 1st and March 31st, 1883, and which have been preserved by Mr. Barber, taxidermist, of this city:—A male Osprey was killed at Hartsholme; it was in splendid plumage and condition, and had frequented the lake for several days previously. An adult female Kite was shot at Croft Bank, near Skegness; the stomach

contained a mass of half-digested earthworms. Two female Peregrines were shot at Branston, one adult, the other in immature plumage; their stomachs contained one shrew mouse, three frogs, one toad, and a mass of frog, mouse, and lark remains—the mouse was nearly entire. The Common Buzzard was pretty numerous in this county last year: I had no less than twelve specimens in hand, and the majority were immature birds. Their stomachs contained nothing worth recording, but in one I found two pheasant chicks, two partridge chicks, two mice, and the remains of some frogs. I had one specimen of the Honey Buzzard (a female) from Gainsborough. A fine male Hoopoe was shot at North Hykeham; its stomach was full of lepidopterous larvæ, which I could not distinguish, as they were too much digested.—J. F. MASHAM (South Park, Lincoln).

Curious Variety of the Guillemot.—A Guillemot was shot in Torbay by Mr. Drummond on November 27th, 1883, and was taken at once to the Torquay Natural History Society, where it was carefully examined by Mr. W. Else, the curator, an experienced taxidermist. It answers completely to Yarrell's description of the Common Guillemot (*Uria troile*), with the single exception that those parts of it which should have been black are a very light ash-grey, while the shafts of some of the small feathers in the said parts are brown. In short, looked at casually, the bird would be pronounced to be entirely white. As the irides were dark hazel it cannot be regarded as a case of albinism; nor does it appear to be a case of disease, for the bird was in good condition, and weighed 36 oz. average, while an ordinary specimen of the Common Guillemot, also in good condition, shot in Torbay a few days after, weighed 34 oz. Yarrell makes no mention of such a variety. It is now in the Museum of the Torquay Natural History Society.—WILLIAM PENGELLY (Torquay).

Curious Nesting-place of the Sand Martin.—Underneath a bridge of the London and North Western Railway, which crosses the canal at Oxford, we found a nest of the Sand Martin, containing one egg. The nest was placed in a hole between the bricks, and could not possibly have been excavated in any way by the old birds.—J. R. EARLE (15 Norham Road, Oxford).

Kite and Marsh Titmouse in the Pyrenees.—I was at Eaux Bonnes, in the French Pyrenees, which is only a few miles from Argèles, for a few days in December, 1876. I had not any gun, but I scrutinised every bird with a pair of binoculars, and I noted two species—the Common Kite, *Milvus regalis*, and the Marsh Titmouse, *Parus palustris*—not met with by Mr. James Backhouse (p. 20). Of the latter bird I identified two examples, while of the former I saw eight or ten in one valley; and I remember that one passed the carriage so near as to make me long particularly for a gun.—J. H. GURNEY, JUN. (Hill House, Northrepps, Norwich).

Unusual Variety of the Common Sandpiper.—Through the gift of Mr. Backhouse, jun., of York, I have been able to add to my collection of varieties a specimen of the Common Sandpiper with white wings, the rest of the plumage being of the ordinary colour.—J. WHITAKER.

Recent occurrence of the Crane in Co. Mayo.—I am indebted to the kindness of Mr. John C. Hearne, of Killoshine Cottage, near Ballinrobe, for a specimen of the Crane, *Grus communis*, recently shot near Lough Mask. It was an immature male, and weighed in the flesh, when I received it on January 5th, eleven pounds. It measured, from bill to tail, 3 ft. 6½ in.; from bill to longest toe, 4 ft. 7 in.; spread of wings, 6 ft. 9 in.; from carpal joint to end of longest primary, 1 ft. 10 in. The beak was of a yellowish horn-colour; the irides, which were narrow, were yellowish, as far as I could judge in the sunken condition of the orbits. There is no black nor white on the plumage of the head, which has a tinge of brownish buff, and the feathers of the back have brown mingled with the general grey colour of the plumage. The tertial plumes are not developed. Messrs. Williams & Son, of Dublin, in whose hands I have placed it, inform me that the stomach contained some small freshwater snail-shells. Mr. Hearne wrote to me on the 2nd of January that he had shot it on the previous day near Lough Mask and the mountains. He saw it alight with another on a stubble-field. In a note by Dr. Harvey, referring to the Crane in the museum of Queen's College, Cork, he states that it was "from Annah Bog, Kinsale, shot on the 17th November, 1851, by Commander Douglas." He adds:—"Of four which were seen three were obtained; two, I understand both males, were sent to the Dublin Natural History Society. I know of no other instance of the occurrence of the bird in Ireland since the great frost of 1739, when one was taken in Cork Harbour." Smith, in his 'Natural History of Waterford' (p. 336), states that in 1739 Cranes were seen in the counties of Cork and Waterford. Two instances of its occurrence in Ireland within the present century are mentioned by Thompson (vol. ii. p. 132), and he quotes Geraldus Cambrensis to show that in the days of that writer flocks of a hundred Cranes were frequently to be seen. See also 'Zoologist,' 1881, p. 436. The two male birds mentioned above as shot in 1851 are now in the Museum of Science and Art, Dublin.—R. J. USSHER (Cappagh, Co. Waterford).

Breeding of Redshank in North Yorkshire.—On the 9th April last a pair of Redshanks made their appearance in a large marshy field here, and seemed to find abundance of food, as they could always be seen there. On the 13th May I found the nest of the birds in the centre of the enclosure. The eggs, four in number, were snugly concealed in an overhanging tuft of grass, and a few pieces of bent and grass only intervened between them and the ground: they were very richly marked specimens.

This is the first known instance of Redshanks breeding in this locality. A pair of these birds visited the same piece of land six years ago, but after staying a day or two they disappeared, and though they might have bred on some of the moors around, I never heard of anyone having noticed them.—THOMAS CARTER (Burton House, Masham).

Snow Bunting in Somersetshire.—I have just seen a specimen of the Snow Bunting, which was picked up at Lodway about the middle of December last. It is a scarce bird in this county. The weather here (Jan. 22) is like April, and I hear that some Starlings have commenced building already.—ROGER FORD (Wraxall Court, Nailsea, Somerset).

[Mr. Cecil Smith, in his 'Birds of Somersetshire,' has noticed the occurrence of the Snow Bunting at Weston-super-Mare. It occurs on the coasts of Devon and Cornwall in late autumn and winter, and ought not to be rare at the same season in Somersetshire.—ED.]

Common Sandpiper in Winter.—As the Common Sandpiper, *Totanus hypoleucus*, has hitherto, I believe, been considered only a summer visitant to England, the following instances of its remaining here through the winter may be interesting:—In 1879 a Common Sandpiper was brought to me that had been killed on the Severn near Leighton, on Nov. 27th. In 1882, I saw one near Leighton on Dec. 19th, and frequently afterwards up to the end of March. Mr. H. P. Shaw also shot one, near Cound, on Dec. 26th of that year. In 1883, I again saw one of these Sandpipers near Leighton on Dec. 8th, and one, probably the same bird, was shot there on the 21st of that month. The three that have been killed were all birds of the year, but in very good plumage. They were excessively wild and difficult to get near. The one shot by Mr. Shaw is now in my possession, and that killed on the 21st December is being preserved by Mr. Henry Shaw, of Shrewsbury. I may add that this Sandpiper is common in Shropshire in summer, usually arriving in April, and leaving again in September, or the early part of October. There is no doubt about the specific identity of the birds mentioned. They were very fat, and had evidently, from the bright state of their plumage, found plenty to eat. No symptoms of any previous wound could be found when skinning them, and they certainly were well able to fly.—WILLIAM E. BECKWITH (Eaton Constantine, Salop).

Common Buzzard in Nottinghamshire.—One of these birds alighted near the hall-door at Fountain Dale, where it allowed itself to be caught. It was put in a stable, but the next morning died, evidently from shot-wounds. It was in very poor condition, and its plumage was much draggled. The Buzzard is now a rare bird in these parts, and as it is at once shot or trapped when seen, I am afraid its breeding in any of the large woods here is now a thing of the past.—J. WHITAKER (Rainworth Lodge, Notts).

Hybrid Canary and Serin Finch.—I have lately acquired the only hybrid between the Serin Finch and Canary that I know to have been reared in England. It is a male, and sings the Goldfinch-song with accuracy and spirit. It was reared in confinement, in June, 1883, by Mr. J. H. Verrall, of Lewes. It closely resembles a Serin, but the tail is longer, and there is a green shade about the plumage, strongest on the breast. The shape of the head and bill are exactly those of the Serin. It was bred between a male Serin and a yellow domesticated female Canary.—H. A. MACPHERSON (Carlisle).

Wryneck in Winter.—On the 1st of January, in Norfolk, I both saw and heard a Wryneck. Is not this a very uncommon occurrence, or has the Wryneck ever been known to stop through the winter? The bird uttered its note, so well known in spring time, only a few yards above my head, it being perched upon the tree under which I was passing. It sounded so loud that I looked up, expecting to see a Kestrel, and was very much surprised to see the Wryneck fly off.—A. H. UPCHER.

Night Heron in Kent.—At a meeting of the Zoological Society held on the 15th January last, the Secretary exhibited a specimen of the Night Heron, *Nycticorax griseus*, which had been shot during the previous month of December in Plumstead Marshes, Kent. See 'Handbook of British Birds,' p. 56.—J. E. HARTING.

Little Gull and Hawfinch at Penzance.—Mr. Edward Vingoe has a specimen of the Little Gull, *Larus minutus*, lately shot by him on Lariggan Rocks, to the westward of Penzance. It is now with his father, Mr. W. H. Vingoe, who will set it up. The Hawfinch has been observed at Pendarves, near Camborne. The fact is worth notice, because the occurrence of this bird in West Cornwall is very rare.—THOMAS CORNISH (Penzance).

Gulls in the Isle of Wight.—Mr. Rogers, from whom I heard this morning (Jan. 15th), says that neither the Kittiwake nor the Black-headed Gull breeds in the Freshwater cliffs, as stated in my note (p. 30). The fact is that Mr. Rogers's letters are seldom punctuated, and the two specimens referred to, though frequenting the cliffs, do not breed there. I shall therefore feel obliged by the correction of this statement.—H. HADFIELD (High Cliff, Ventnor).

FISHES.

Sharks on the Coasts of Devon and Cornwall.—Since my notice of the appearance and capture of Sharks on the coasts of Devon and Cornwall in September last (Zool. 1883, p. 471), on my way to Polperro, through Looe, I called on Mr. Stephen Clogg, who told me of many more that had been caught on that part of the coast, among which were one or two

Threshers, *Squalus vulpes*, and on my visiting the beach, after leaving his house, I saw an exceedingly fine Blue Shark, *S. glaucus*, which had been brought in during the night, moored to the quay, Mr. Clogg showed me the original water-colour drawing of the immense Basking Shark, *S. maximus*, 31 ft. 8 in. long, that was taken in Cornwall many years since, and from which the figure in the late Mr. Couch's work on British Fishes was copied. I do not remember Sharks ever having been more plentiful on our coasts than during the past autumn.—JOHN GATCOMBE (Stonehouse).

Ray's Bream in Cornwall.—Mr. F. W. Millett, of Marazion, has handed me a very fine specimen of Ray's Bream, *Brama Rayii*, which was taken by him, on the 29th November last, on the beach between Penzance and Marazion. As in the case of all previous specimens obtained, this fish was found dead and washing on the beach at the edge of the waves.—THOMAS CORNISH (Penzance).

CRUSTACEA.

Dwarf Swimming Crab at Penzance.—On January 15th I obtained a second specimen of the Dwarf Swimming Crab, *Portunus priscillus*, and, singularly enough, I found it where I found my first—on a doorstep in the middle of Penzance. I have no doubt that it was rejected from his basket by a dealer in sprats caught in St. Ives Bay, who had just passed on. If so, it shows that the crab must have been swimming with the sprats when they were taken in a seine-net. It is not by any means a common crab in the seas of West Cornwall. After watching for it for twenty-five years I have only obtained two specimens which I have identified, and seen one living crab, which I believe to have been *P. pusillus*, in a rock-pool of salt water at Prussia Cove, but, as I failed to capture it, my identification is not complete.—THOMAS CORNISH (Penzance).

MEMOIR OF THE LATE PROFESSOR SCHLEGEL.

On January 17th, at the age of 79, died Professor Hermann Schlegel, for five and twenty years Director of the Royal Museum at Leiden, and for nearly fifty years one of the most indefatigable zoologists the world has ever seen—a man whose name is known not only throughout Europe, but in every part of the globe where the literature of zoology is studied or read.

It would indeed be difficult to point to any one who, as a Professor, has done more for students than he has done, for his teachings have not been imparted merely to those in his own

country, but have been acknowledged and appreciated by students of all nations.

The reputation which he has enjoyed, and the respect which he has justly earned, have been due to various causes; partly to his natural ability and command of languages, partly to his method of study, and partly again to the splendid opportunities which he enjoyed for prosecuting his studies in a museum which, mainly through his instrumentality, has become one of the finest in Europe.

By the agency of well-trained Dutch collectors in Japan, the Dutch Indies, and various islands of the Malay Archipelago, the most valuable collections found their way to his study, and were systematically examined and described, and eventually arranged in the wonderful Museum at Leiden, of which he was appointed Director in 1858, on the death of his predecessor in that office, the eminent naturalist, Temminck.

No collections could have been turned to better account, for they furnished materials for the most important memoirs on the zoology of countries previously little explored by zoologists, and led Prof. Schlegel to acquire the comprehensive knowledge and sound views of classification which were subsequently made manifest in so many of his published memoirs.

Perhaps no work relating to the zoology of the East (unless it be Jerdon's 'Birds of India') has been more frequently consulted than Temminck and Schlegel's 'Fauna Japonica'; while no Museum Catalogues (if we except those of our own British Museum) have been found more useful by students than the eight volumes known as the 'Museum des Pays Bas' put forth by the untiring industry of Professor Schlegel. His appreciation of a large series of every species collected for him was well known, and went far to establish that confidence which was expressed in the opinions so often asked of him by fellow-workers. The acquisition of so large a number of specimens of each species as he possessed, collected at different seasons and in various localities, prevented him from falling into the too common error of making new species out of mere examples of individual variation, while it enabled him at the same time to note and fully describe the limits of variation in any given species of which a sufficient number of examples were available for examination.

One of his earliest works was his '*Essai sur la physiognomie des Serpens*,' which appeared in 1837, in two vols. 8vo, with a folio Atlas. This may be said to be the first really scientific work on Serpents ever published, and, although since that date great advancement has naturally been made in the science of Ophiology, this work still remains a monument to the learning and zoological acumen of its author.

In 1844 appeared his '*Revue Critique des Oiseaux d'Europe*,' in French and German, a most useful book in its day, and one which is still quoted with approbation.

Ten years later came his '*Vogels van Nederland*' (of which another edition appeared in 1878), and in 1857 his useful '*Handleiding der Dierkunde*,' in two vols. 8vo, with folio Atlas.

His intimate knowledge of the birds of prey, as exemplified in '*Die Europäischen Tag-Raubvögel*' and his '*Traité de Fauconnerie*,' was universally recognised; the last-named folio volume, illustrated by Joseph Wolf with coloured figures, life-size, of all the hawks used by falconers, being justly regarded as the finest work on falconry produced in modern times.

Quite as important as the '*Fauna Japonica*' or the '*Vogels van Nederlandsch Indie*,' published in 1863, are the '*Recherches sur la Faune de Madagascar*,' in which, with the aid of those observant travellers, Pollen and Van Dam, the most valuable additions were made to our knowledge of the Great African Island, whence many rare species were described and figured.

Not to mention the numerous essays and memoirs which Schlegel's busy pen contributed, in several languages, to various zoological journals during his long scientific career, we may refer to his latest publication—which happens to be in English—'*Notes from the Leiden Museum*,' a useful periodical which has found much favour with zoologists in this country. Our readers may remember that an interesting article by Professor Schlegel "*On the Winter Nest of the Harvest Mouse*" was reprinted from these '*Notes*' in '*The Zoologist*' for June, 1881.

For some months before his death, his friends had observed with concern his failing health and fading eyesight, which gradually put a stop to that active daily routine in which he delighted, but which nevertheless did not deter him from visiting to the last the Museum in which he had so long and ably worked, and in which his interest seemed as keen as ever.

Could his friend Prince C. L. Bonaparte have been now amongst us, what a tribute would he not have paid to the memory of one whose fame he long ago predicted, when, in that elegant Latin preface to his 'Conspectus Generum Avium,' which he dedicated to Schlegel in 1850, he referred to the bright expectations of a career which have since been so nobly realised.—J. E. H.

SCIENTIFIC SOCIETIES.

LINNEAN SOCIETY OF LONDON.

January 17, 1884.—Sir JOHN LUBBOCK, Bart., M.P., F.R.S., President, in the chair.

Mr. A. Pennington was elected a Fellow of the Society.

A presumed portrait, in oil, of Linnæus was exhibited on behalf of Mr. F. Piercy.

A paper was read by Mr. A. D. Michael, "On the 'Hypopus' question, or life-history of certain Acarina." From a careful series of experiments and observations he concludes that true Hypopi are not adult animals, but only a stage, or heteromorphous nymphs, of *Tyroglyphus* and allied genera. Nor do all individuals become Hypopi, which latter stage takes place during the second nymphal ecdysis. It seems a provision of nature for the distribution of the species irrespective of adverse conditions. Hypopi are not truly parasitic, nor confine themselves to any particular insect. A new adult form described is called by the author *Disparipes bombi*, and he believes there are other species of the genus *Donnadieu*, bee-parasites admitted to be adults, though it is uncertain if they are identical with Dufour's *Trichodactylus*. The following specimens were exhibited under the microscope in illustration of the paper:—*Disparipes bombi*, inert fully grown nymph, showing the adult female fully formed inside; also male, female, and latter from under side, of the new species *D. bombi*.—J. MURIE.

ZOOLOGICAL SOCIETY OF LONDON.

December 18, 1883.—Prof. W. H. FLOWER, LL.D., F.R.S., President, in the chair.

The Secretary read a report on the additions that had been made to the Society's Menagerie during the month of November, and called special attention to a pair of Gold Pheasants, presented November 10th by Sir

Henry W. Tyler, and remarkable for the hen bird having gradually assumed the (now nearly complete) dress of the male; and to a young pair of singular Deer of Manchuria called Père David's Deer, *Cervus Davidianus*, purchased November 16th.

Dr. F. Leuthner read an abstract of a memoir which he had prepared on the *Odontolabani*, a subfamily of the coleopterous family *Lucanidae*, remarkable for the polymorphism of the males, while the females remained very similar. The males were stated to exhibit four very distinct phases of development in their mandibles, which the author proposed to term "priodont," "amphiodont," "mesodont," and "telodont." These forms were strongly marked in some species; but in others were connected by the insensible gradations, and had been treated by the earlier authors as distinct species. The second part of the memoir contained a monograph of the three known genera which constitute the group *Odontolabini*.

Mr. E. B. Poulton read a memoir on the structure of the tongue in the *Marsupialia*. The tongues of species of nearly all the important groups of this subclass were described in detail. It was found possible to classify the tongues in three divisions. Of these *Hulmaturus* was the type of the lowest, *Phalangista* of the intermediate, and *Perameles* of the most advanced division.

Mr. J. Wood-Mason read a paper on the *Embiidae*, a little-known family of insects, on the structure and habits of which he had succeeded in making some investigations during his recent residence in India. He came to the conclusion that the *Embiidae* undoubtedly belong to the true Orthoptera, and are one of the lowest terms of a series formed by the families *Acridioidea*, *Locustidae*, *Gryllidae*, and *Phasmatidae*.

Mr. G. A. Boulenger read an account of a collection of Frogs made at Yurimaguas, Huallaga River, Northern Peru, by Dr. Hahnel. The collection contained examples of eighteen species, eight of which were regarded as new to science.

Mr. W. F. R. Weldon read a paper on some points in the anatomy of *Phanicopterus* and its allies. An account was given of the air-cells of the Flamingo, which were shown to differ from those of *Lamellirostres*, and to agree with those of Storks—(1) in having the præbronchial air-cell much divided, (2) in the feeble development of the posterior intermediate cell, and (3) in the great size of the abdominal cell. The pseudopiploon was also shown to differ from that of *Lamellirostres*, and to agree with that of Storks, in extending back to the cloaca. A detailed comparison between the muscles, especially those of the hind limb, gave the same results. The larynx, however, being Anserine, and the skull intermediate, the position expressed by Huxley's term *Amphimorphæ* was considered fully justifiable.

Mr. Sclater read a paper, in which he gave the description of six apparently new species of South-American Passeres.

January 15, 1884.—E. W. H. HOLDSWORTH, Esq., F.Z.S., in the chair.

The Secretary read a report on the additions that had been made to the Society's Menagerie during the month of December, 1883.

The Secretary exhibited, on the part of Mr. H. Whitely, an immature specimen of the Night Heron, *Nycticorax griseus*, which had been shot in Plumstead Marshes, Kent, in December last.

A communication was read from Mr. J. C. O'Halloran, Chief Commissioner and Police Magistrate for Rodriguez, accompanying a specimen of a large Lizard found only in that island, and very rare there. The specimen had been identified by Mr. Boulenger as *Phelsuma Newtoni*, belonging to the family *Geckotidæ*.

Sir Joseph Fayrer exhibited some additional specimens of the horns of Deer gnawed by other Deer, in confirmation of previous remarks on the subject.

Canon Tristram exhibited and made remarks upon some specimens of species of the genus *Pachycephala*, which appeared to have been ignored or wrongly united to other species in a recently published volume of the 'Catalogue of Birds of the British Museum.'

Mr. W. F. R. Weldon read a paper in which he gave a description of the placenta in *Tetraceros quadricornis*. The author showed that this placenta is intermediate between that of *Moschus* and that of the typical *Bovidae*, having few cotyledons with diffuse vascular ridges between them. Associated with this primitive character is a uniserial psalterium.

A second paper by Mr. Weldon contained some notes on the anatomy of a rare American Monkey, *Callithrix jigot*, which had recently died in the Society's Gardens. The author gave a description of the external characters, and the principal viscera were compared with those of *C. moloch* and of *Mycetes*.

A communication was read from Mr. E. J. Miers, giving an account of a collection of Crustacea from the Mauritius, which had been forwarded to the British Museum by M. V. de Robillard. In the collection was an example of a new species of *Callianassa*, proposed to be called *C. Martensi*.

Mr. Francis Day read a paper on races and hybrids among the *Salmonidæ*, and exhibited a series of specimens of young Salmon and hybrid *Salmonidæ* reared at Sir J. Gibson Maitland's Howietown Fish Establishment.

Prof. F. Jeffrey Bell read a paper on the generic position and relations of *Echinanthus tumidus* of Tenison-Woods, from the Australian Seas, which he showed to belong to a different genus, proposed to be called *Anomalanthus*.—P. L. SCLATER, *Secretary*.

